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A RAND NOTE

An Assessment of the Economic Reform in Poland's State–Owned Industry

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May 1988

40 Years 1948-1988

RAND

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PREFACE

This Note provides an empirical assessment of the economic reforms introduced in Poland's state-owned industry since 1982. Much of the current literature on the Polish reform is of a theoretical nature; this study is intended to contribute to the empirical foundations of the debate on the effects of the reforms.

The Note will become a chapter in a volume on the Polish economy and economic reform edited by David Kemme of Wichita State University. Portions of it will also be incorporated into a forthcoming study on the military dimensions of economic reform in China, Hungary, and Poland, written in collaboration with K. C. Yeh of The RAND Corporation.

Research for this Note was conducted during a stay in Poland financed by the Fulbright-Hayes Program of the U.S. Government and at The RAND Corporation through the Program for Integrating Economics and National Security funded by The J. Howard Pew Freedom Trust, one of The Pew Charitable Trusts. It is part of a continuing research program in International Economic Policy, the principal focus of which is the interface between international economics and national security issues, in RAND's National Security Research Division.

SUMMARY

In 1982, the Polish leadership introduced a large-scale reform of Poland's economic system. In this reformed system, enterprises were to become independent, self-financing entities managed by directors chosen by workers' councils (but approved by the government). Managers would be compelled to improve efficiency by becoming accountable for enterprise performance. Meddling by government authorities in enterprise decisionmaking was to be curtailed by making a workers' council the locus of ultimate authority in each enterprise. Direct allocation of goods and services was to be replaced by markets. The government was to rely on indirect instruments such as subsidies and taxes, rather than direct measures, to allocate resources.

The purpose of this reform was to improve economic efficiency. However, since its inception, a multitude of inconsistent policy instruments have been introduced by the central government in the pursuit of other policy goals, such as reducing inflation, preventing factory closures and unemployment, and preserving real wage levels for politically important industries.

Interviews with enterprise managers indicate that their goals and actions are not those outlined in the reform. Their primary goal has been to stay in the good graces of the branch ministry and, to a lesser extent, of the workers' councils. However, because of the government's emphasis on preserving labor peace, the ministry's primary goal often boils down to keeping the work force content. For the enterprise manager, this has meant increasing workers' wages, which in turn has depended on increasing after-tax, after-subsidy profits.

Increasing profits can be pursued along several avenues. To some extent, managers follow the path of reducing costs and innovation. However, because of the many obstacles they face in adapting production, managers have found that lobbying the center for tax relief, investment grants, and subsidies is possibly of greater importance in determining their enterprises' financial health. Enterprise managers devote much of

their energies to lobbying partly because the rate of return is high, but also because of the multiplicity of constraints that limit their managerial freedom.

Managers find their actions hampered by price controls, which have had a debilitating effect on profitability and on more rapid enterprise response to changes in demand and input costs. In general, the larger the share of fixed-price goods in total sales, the lower the profitability of the enterprise. Shortages of labor and physical capital have also been binding constraints for many enterprises. Fifty percent of the managers who participated in one survey stated that problems with supplies constituted an important, binding constraint on production. Most of the enterprises receive almost all their inputs through obligatory deliveries ordered by the center, not through markets. Imports have also been in short supply.

Almost three-fourths of the managers in the survey were critical of the reform. The critics argued that many fundamental features of the reform were still to be introduced. The sharpest criticism was directed toward the center for its unwillingness to trust decisions made by enterprise managers. One manager in particular criticized the center for constantly changing regulations, for being too soft--not making enterprises suffer the consequences of the decisions taken by their directors. He argued that there was a lack of freedom to make decisions and a lack of responsibility for those that were made. Most of the managers blamed the opposition of the central administrative bureaucracy to the reform for this situation.

Capital and labor flows under the reform have been the reverse of what one would expect based on profitability considerations. The coal and food industries have had the worst profitability performance, yet these two industries and electricity generation have registered the largest gains in the shares of investment. Both industries have also registered strong increases in their shares of employment at the expense of apparently more profitable industries.

Markets, an important mechanism for the proper functioning of the reform, have had very limited roles in resource allocation. The combination of controlled prices and accommodatory monetary policy has

led to excess demand in many markets. Tighter controls on input prices than on output prices have preserved a highly distorted price system. Consequently, the reform has done little to restructure the Polish economy toward an output mix that would more efficiently use available resources.

A major problem in the reform is the frequency with which regulations are changed and the poor flow of information between the center and enterprise managers. Even the managers of the large enterprises surveyed frequently did not understand or were not aware of new directives. There was also very little coordination between the central plan and enterprise plans. Because the state allocates such a large share of inputs directly, this lack of knowledge has led to large efficiency losses and poor planning.

Interviews with enterprise managers reveal their quick responses to changes in incentives and the close attention they pay to tradeoffs. Whether state-owned enterprises would still function poorly in a market system is open to question. **However, their failure under the current reform reflects the inability of the center to introduce market conditions in the economy, rather than attitudinal problems of managers and consumers.**

This leads to the question, why has the center failed to introduce these conditions? This Note argues that macroeconomic policy concerns other than efficiency have led to the introduction of a plethora of policy instruments (taxes on nominal wage increases, called *Panstwowy Fundusz Actywizacji Zawodowej* (PFAZ), individual subsidies, tax relief, etc.) that have sharply reduced the effectiveness of measures to improve efficiency. If monetary and fiscal policy had been less accommodating, there might have been less pressure to introduce these efficiency-reducing measures. **However, the Polish central authorities appear to have been unwilling to bear the political costs of some loss of power and of antagonizing certain interest groups by implementing sterner measures. This unwillingness has been the primary reason for the failure of the reform to markedly improve economic efficiency.**

ACKNOWLEDGMENTS

I would like to thank Professor David Kemme of Wichita State University for his careful review and numerous excellent suggestions. This Note has greatly benefited from his advice. I would also like to acknowledge an intellectual debt to Professor Paul Marer of Indiana University for the many insights he has provided on the process and motivations for economic reforms in Eastern Europe over the years. Thanks are also due to the many scholars, managers, policymakers, and consumers in Poland who have helped explain the twists and turns of the Polish economic system. Their generosity with their time and insights made this study possible. The views expressed in this Note are, of course, mine alone.

CONTENTS

I. INTRODUCTION

In 1982, the Polish leadership introduced a large-scale reform of Poland's economic system. The reform was undertaken to reverse the severe declines in economic output and living standards experienced during the previous three years and in response to the accompanying popular pressure for an economic system that would be more responsive to consumers and would provide a higher standard of living.

The economic reform was predicated on the assumption that the only way to generate economic growth in Poland was to increase productivity. Its primary goal was to restore economic growth by inducing enterprises and consumers to make more efficient use of available resources, i.e., to increase technical efficiency. The reform was also designed to increase allocative efficiency by providing mechanisms that would match supply and demand more closely, especially in consumer markets, and would increase gains from trade by improving Polish export performance and making more efficient use of imports.

Theoretically, the reform has significantly altered the operation of the economy. Although Poland has had previous reforms (e.g., in 1956 and 1972), Polish state-owned and cooperative industry has traditionally been run according to the principles of the traditional Soviet-type model:

1. The domination of the preferences of the political elite over those of the populace.
2. The imposition of those preferences through direct allocation of goods and services.
3. The use of an annual plan composed of physical plan targets to impose the center's preferred pattern of resource allocation.
4. The use of a bonus system tied to increases in output or sales and limitations on inputs to induce producers to fulfill the plan.

5. A monopoly on foreign trade designed to prevent arbitrage and preserve the center's power to determine the allocation of goods and services.

The reform purports to change some of the central tenets of this system. Although the center continues to impose its preferences on the economy, it has attempted to replace direct allocation of goods and services through the use of obligatory plan targets with indirect measures such as taxes, subsidies, and exchange rates. Plans are no longer compulsory, and managers of state-owned enterprises are supposedly not rewarded for the fulfillment of plan targets. They are now rewarded in part for their success in increasing profits or value-added, not output. Because of the increased importance of net rather than gross measures, prices have become more important and the center has given a greater role to markets in determining these prices. The monopoly on foreign trade has been weakened as enterprises are now given their own foreign-trade rights and have access to hard currency through their own hard currency accounts.

This study assesses the effectiveness of the reform in Polish state-owned industrial firms. This sector was chosen because of the central role played by the state sector in the Polish economy and the importance the government attaches to industry. State-owned firms dominate production. Their continued ownership by the state is one of the tenets of socialism. Consequently, if the reform is to succeed, it must make these firms more responsive to changes in relative prices and more concerned with efficiency.

The analysis begins with an outline of the reformed economic system. It then discusses the way in which the center attempts to direct enterprises and how enterprises react to these instruments. It concludes with a look at the economic outcomes of this process and the implications of these outcomes for the success of the reform. Because ideas, outlines, and plans for reforms in Poland have been a dime a dozen, this study describes what the center appears to be attempting to do and discusses how state-owned enterprises have reacted, rather than

dwelling on particular theoretical outlines. This approach provides a clearer picture of the reform, and by focusing on "revealed preference"--what the central government has actually chosen to do--rather than policy statements, it avoids the problem of determining actual intentions from contradictory policy statements.

II. THE SYSTEM

The original core of the Polish economic reform in state-owned industry centered on the three S's: *samofinansowanie* (enterprise self-financing), *samorzadnosc* (self-management), and *samodzielnosc* (independence).[1] According to these principles, Polish enterprises were to be independent, self-financing entities managed by directors chosen by workers' councils (but approved by the government). The idea was to force managers to improve efficiency by making them accountable for enterprise performance and by making financial results the primary criterion for enterprise success, and to limit meddling by government authorities in enterprise decisionmaking by making a workers' council the locus of ultimate authority in each enterprise. Financial discipline was to be imposed by making markets a major means of allocating resources.

Despite this original design, the Polish reform should not be viewed as an attempt to establish market socialism. Even under the reformed system, enterprises do not operate like independent, profit-maximizing units, because the central authorities continue to play an important role in the hiring, firing, and remuneration of managers, and in the allocation of investments and intermediate goods. It is still appropriate to think of state-owned enterprises as part of a gigantic state-owned corporation, Poland, Inc., a paradigm used to describe the traditional Soviet-type system,[2] in which the head management (the center) seeks to improve the efficiency of the operation through decentralization. Managers, like line managers in the West, remain dependent on the center for their incomes and jobs. Their actions are therefore determined to great extent by their perceptions of what the center wants them to do.

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[1] *Kierunki reformy gospodarczej*, 1981.
[2] Campbell, 1974.

Resources within this system are allocated through several different mechanisms. Consumer-goods markets are ostensibly intended to clear using prices, although prices of several politically sensitive items such as meat, gasoline, and rents will be controlled. Intermediate goods and labor markets are supposed to clear using market prices. Investment, on the other hand, is allocated through banks, but major sectors for investment are determined by the center, as is the share of output devoted to investment. Enterprises ostensibly have the right to choose freely between domestically produced items and imports, at least imports from hard currency areas. Private individuals do not. Consequently, the *zloty* does not become truly convertible.

These constraints on producers and consumers were intended to be enforced primarily through financial instruments, although direct suasion through ministerial contacts with managers has also been important. Subsidies, tax relief, investment grants, and wage and price controls are all being employed in an attempt to control the allocation of resources and to spur economic growth. The interaction of often conflicting policy goals and the subsequent changes in these policy instruments have determined the form and results of the current system.

III. THE CENTER

ACTORS

The center is, of course, not a single-minded institution with set goals. It consists of a number of institutions--the Politburo, the Council of Ministers, and functional and branch ministries and organizations--each with its own functions and interests.

The Politburo decides overall economic policy, but under Jaruzelski, the Council of Ministers has determined much of the content of policy. Although the Sejm, the Polish parliament, has had a greater legislative role since 1980, most Polish law is generated by the Council of Ministers through decrees. These decrees have determined the structure of the reform. While the Sejm passed about 300 laws on the reform between 1982 and 1985, the government issued roughly 12,000 decrees, of which 8,000 were issued by the Finance Ministry.[1] To put this in perspective, there were fewer than 6,000 state- or cooperative-owned enterprises in all of Polish industry during this period, which means there were two decrees per industrial enterprise. These decrees represent the revealed preference of the central authorities.

The most important functional ministries are the Ministry of Finance, the National Bank, the Planning Commission, and the Ministry of International Economic Cooperation (formerly the Ministry of Foreign Trade). With the exception of the Planning Commission, these ministries have greatly increased in importance since the introduction of the reform.

The Finance Ministry sets regulations on prices, implements tax policy, and determines which enterprises are eligible for tax rebates and subsidies. As a result, it has become the most important ministry in Poland.

The National Bank has also changed its role. Whereas it formerly merely handled transactions and issued money as needed to finance

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[1]Kaminski, 1985, p. 30.

enterprise investment and the budget deficit, it now has targets for credit and for the issue of currency. It also evaluates the potential for an enterprise to repay a loan from the proceeds of an investment. In the past, credits were granted passively on the orders of the Council of Ministers or the Planning Commission.

The Planning Commission still uses the balance method to draw up plans, so the mechanics of plan formulation have not really changed. Branch ministries provide the Commission with lists of expected output levels and input demands for "key" commodities, and the Commission attempts to balance requests with expected supplies. However, plans are no longer compulsory for enterprises and are drawn up in variants to provide the Council of Ministers and the Sejm with a choice.

The Ministry of International Economic Cooperation continues to have the same position within the new system as its predecessor, the Ministry of Foreign Trade, had within the old. However, it has become more active in terms of exchange-rate policy, providing information and supervising the increased number of firms that have foreign-trade rights. Interview data indicate that the Ministry of International Economic Cooperation is taking a more active role in encouraging exports. Fourteen of 56 enterprise managers in one survey gave this ministry positive marks; 8 criticized it for failing to react to the needs of the enterprises and to market exports more strongly; the rest did not comment.[2]

State-owned enterprise managers in Poland continue to be appointed and judged by the "founding organ," which is generally the branch ministry or, in the case of smaller firms, the local government. The branch ministries, which include a superministry, the Ministry of Industry, founded in 1987, and the ministries of agriculture, communications, and transportation, nominate and approve managers, may dismiss them at will, and set their bonuses and salaries. They

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[2]Wojciechowska and Lipinski, 1986, p. 225. The sample consisted of 16 enterprises in the electrical and machine-building sectors, 13 in light industry, 8 in the chemical industry, 7 in metallurgy, 5 in food processing, 3 in minerals, 2 in wood and paper, 1 in the fuel industry, and 1 in the "other" category.

frequently demand information from enterprise on their plans, production, and use of materials.[3] Consequently, managers are primarily beholden to the branch ministries. However, somewhat surprisingly, 24 of 31 enterprise managers who commented on their relations with the branch ministry evaluated them positively.[4] These managers argued that their relationship was substantially different from that during the pre-reform period. Ministries often intercede with the Ministry of Finance concerning tax and subsidy questions and attempt to provide the enterprises with inputs. They are perceived more as partners than as opponents, especially as enterprise managers believe that the power of the ministries to order particular actions is now much more limited than it was prior to the reforms.

Under the ministries lie the associations. These organizations replaced the old *zjednoczenie*, an intermediate trust. Membership in most of the associations is voluntary, although for heavy industry enterprises it tends to be compulsory. Voluntary associations are primarily concerned with allocating inputs and planning investment in the industry. Membership costs are paid from profits, so enterprises must have a strong incentive to join, in view of the important uses to which profits can be put elsewhere. In recent years, cooperatives, technical institutes, and even private artisans have joined voluntary associations in order to secure input supplies.

Compulsory associations have played a far different role. For example, the association for electricity generation is highly centralized and coordinates investment policy. It has also had an important role in allocating inputs and determining production.[5]

Most enterprise managers positively evaluated the role of the associations. According to the managers, they represent the interests of the enterprises to the center and also provide scarce inputs and additional investment funds.

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[3]Wojciechowska and Lipinski, 1986, p. 193.
[4]Ibid., p. 207.
[5]Ibid., p. 241.

POLICIES AND POLICY INSTRUMENTS

Aside from the goals of increasing economic efficiency, attaining market equilibrium, and improving foreign-trade performance, the center has also attempted to lower the rate of inflation to single-digit levels while preventing factory closures and unemployment and preserving real wage levels for sensitive political groups--workers in heavy industry and mining. The center has found it impossible to pursue these goals simultaneously, yet the Council of Ministers has been highly sensitive to the possibility that economic dissatisfaction generated by the failure to attain these goals will lead to demonstrations that could threaten the government. Consequently, in recent years economic policy and reform measures often appear to be dictated by immediate concerns about the popularity of particular decisions. This has led to the introduction of *ad hoc*, often contradictory decrees, making economic policy and the instruments used to pursue it inconsistent with the principles of the reform. These economic policies are analyzed below, and the ways they have affected the implementation of the reform are explained.

Monetary Policy

Despite the existence of plans for the supply of credit and the issue of currency, monetary policy is still accommodatory.[6] If an investment runs over budget, the National Bank usually accommodates the increased demand for credit, thus leading to an increase in the money supply despite the existence of a target for the supply of credits. The government budget deficit continues to be financed by printing money. Consequently, when enterprises experience unplanned losses and are subsidized from the budget or by writing off loans, the money supply rises, feeding into the continued growth of nominal aggregate demand.

The reluctance of the government to adopt an active monetary policy is probably motivated by the desire to forestall plant closures. The government has yet to allow an important firm to close; most firms have

[6] Interview data.

been protected from financial difficulties. The government also has not adopted a harder policy because of its reluctance to halt investment projects once started and its inability to fight off special interests.

Prices

The counterpart to monetary policy has been price policy, which has been a primary concern of the Council of Ministers. The Council has stipulated three types of prices: fixed, regulated, and contract. Fixed, government-set prices are used for a wide range of consumer goods and basic industrial inputs such as foodstuffs, public transport, utilities, ores, petroleum, and coal. Regulated prices can be changed only after consulting the Ministry of Finance. Contract prices are set between firms or by the market.

In recent years, neither regulated nor contract prices have functioned well. Because the center has been unwilling to control the money supply, it has relied on price controls to limit the "reported" rate of inflation. These controls have been extended from regulated and fixed prices to contract prices by stipulating that prices must be constructed on the basis of "justified costs," i.e., prices must be set on the basis of costs plus a markup. In other words, these prices are cost-plus, but only part of "justified" cost increases can be passed along in prices. Prices are not tied to market demand and thus frequently fail to clear the market. Many of those that do clear the market contain a highly variegated turnover tax. Consequently, prices have adjusted poorly to changes in demand and fail to provide enterprises with accurate reflections of relative costs or demand.

Allocation of Industrial Inputs

Because monetary policy is accommodatory and prices are not permitted to rise to clear markets, enterprises face excess demand for most of their products. Since markets are not allowed to function, some other method of allocating inputs has to be used. The Polish center has fallen back on a version of the old system employed in traditional Soviet-type economies. As of 1986, roughly half of fuels and important raw materials and an even higher percentage of imports were still

centrally allocated. Other formal and informal measures were instrumental in allocating much of the remainder.[7] Producers of inputs such as steel products, coal, and electricity must sell all or almost all of their output to central wholesalers. The wholesalers do not operate as profit-maximizing enterprises. They choose their customers on the basis of instructions from the Planning Commission, branch ministry requests, and orders from the Council of Ministers. Branch ministry requests in turn are decided on the basis of requests from associations and large enterprises. Bargaining power and past patterns of resource allocation are therefore the primary means of deciding who gets what in this system.

The center has attempted to better ensure that its preferences, rather than the preferences of the branch ministries, are enforced, through the introduction of a system of "government orders" for products that the government decides are priority items. Enterprises bid for these orders, and if their bid is accepted, they are guaranteed the necessary inputs to manufacture the products.

In practice, the system replicates many of the features of the old Soviet-type economy. Most of the orders are not for government consumption. The government contracts for the entire output of the industry and then sells that output through the state wholesale network. Consequently, the enterprise faces a monopsony, rather than multiple buyers. Additionally, the government has not selected its priorities carefully. Most enterprises receive at least one government order for a large share of output. Supplies of inputs frequently do not meet the quantities promised by the government, so contracts cannot be honored and the whole system of shortage is perpetuated.

Wage Policy

Because monetary policy is accommodatory and the government uses price controls to keep the recorded rate of inflation lower than it would otherwise be, excess demand is endemic to the system. This extends to the demand for labor as well. To keep the rate of increase

[7] World Bank, Vol. I, 1987, pp. 20-21.

in nominal demand from accelerating, the government has adopted an incomes policy to control wages. This policy has been exercised by levying a punitive tax on nominal wage increases above a specified level (12 percent in 1987, for example). This tax, called *Panstwowy Fundusz Actywizacji Zawodowej* (PFAZ), is paid from profits; it runs 200 or more percent of wage increases over the threshold level. However, to encourage firms to shed labor, the government taxes increases on the total wage bill, not individual wages. Consequently, firms that shed workers can increase wages by more than the threshold level by distributing the wage fund among the smaller pool of remaining workers.

Obviously, such a system penalizes firms that wish to hire new labor and thereby slows restructuring. Taxes are so high that the marginal production from an additional worker is rarely great enough to make paying the tax worthwhile. Price controls also prevent firms from increasing prices to raise profits and thereby increase the wage bill.

To encourage some restructuring, the government allows partial exemptions to the PFAZ tax based on increases in value added, output or exports, and in some instances, enterprise-specific exemptions.[8] Thus, if an enterprise increases exports, it can offer higher wages to its employees without incurring the tax. However, exemptions have frequently been granted for individual firms on the basis of petitions. Thus, PFAZ taxes vary widely from firm to firm in an arbitrary fashion.

In general, the enterprise managers interviewed by Wojciechowska (1986) were highly critical of PFAZ. Although 46.5 percent argued that such a tax was necessary, even these individuals felt the tax was too progressive, led to bargaining with the central authorities concerning tax relief, and in general did not achieve the purpose for which it was designed.

Fiscal Policy

Because the Polish government finances the budget deficit by printing money, fiscal policy consists of tax and expenditure policies; internal debt management is not an issue. The Ministry of Finance sets

[8] Wojciechowska and Lipinski, 1986, p. 72.

tax rates, subsidies, and many prices. Thus, it has a multitude of fiscal policy instruments from which to choose. There are three main types of tax: PFAZ, profit taxes, and turnover tax. Enterprises also must turn over a share of amortization, which is akin to a tax on capital.

Taxes command a very large share of enterprise resources. In 1985, PFAZ taxes in a sample of 2,211 Polish firms averaged 15.9 percent of the wage bill, and profit taxes took 47 percent of profits on average (the median was 52.7 percent) and ranged from 5.1 to 70 percent of total profits. Turnover taxes averaged 4.8 percent of production sold.[9] In this same sample, enterprises paid from 7.2 to 78 percent of amortization to the national budget in 1985.[10] In other words, the government sets highly variegated, seemingly arbitrary tax and amortization retention rates.

Subsidy rates also vary greatly. Of the 2,211 enterprises surveyed, 1,063 received subsidies or tax relief. Subsidies averaged 345 percent and ranged from 0.1 to 1117 percent of the reported profits of these enterprises.[11]

Subsidies are given to cover the costs of producing items with fixed prices. These products are usually either raw materials (coal, coke), agricultural inputs (fertilizer), or food products (milk products and meat). Some enterprises also receive export subsidies.[12] In some cases, high-cost producers are also given subsidies to make up the difference between their costs and the official price based on costs of lower-cost producers.

The central government has not worked out a coherent subsidy policy. In many cases, government organs individually tailor subsidies for enterprises. In general, those enterprises that make the largest

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[9]Wojciechowska et al., 1987, p. 16. These authors conduct an annual statistical analysis of over 2,000 (of a total of 5,496) Polish industrial enterprises based on data from the Polish Statistical Office. The firms in the sample produce most of Poland's industrial output.

[10]Ibid., p. 23.

[11]Ibid., p. 16.

[12]Wojciechowska and Lipinski, 1986, p. 160.

losses in an industry receive the largest subsidies. Consequently, subsidies act as an instrument for leveling out differences among enterprises. The enterprises that perform worst are rewarded; those that perform best are, in effect, penalized.

Investment Policy

Because the government takes such a large share of profits and amortization from enterprises, only half of total investments in the state and cooperative sector are provided by those enterprises.[13] The other half are determined by the central and local governments, social funds, and cooperative housing associations. However, the construction and machine-building industries also face excess demand, so even when a decision is made to start an investment project, the materials and means to construct the project are frequently not available. Thus, the government faces a twofold decision: What should it invest in, and which of the selected projects should actually be implemented?

These decisions are still determined by bureaucratic battles. Although the National Bank has been given a more important role in assessing investment projects, the actual choice of government-funded projects is still determined by the Council of Ministers, for whom rate of return is only one criterion. At lower levels, the ability of managers to obtain materials and construction workers for a project depends heavily on the managers' bureaucratic clout and their relations with the contractor. Thus, market forces play a very weak role in determining the allocation of capital.

Foreign-Trade Policy

The center uses exchange rates, subsidies, tax relief, and hard currency accounts to motivate enterprises to export. Exports under Council for Mutual Economic Assistance (CMEA) treaties, however, are often made legally compulsory. The most important of these instruments

[13]In 1983, enterprises provided 48.6 percent of total investments in the state and cooperative sectors; in 1984, 51.6 percent; and in 1985, 52.4 percent (*Maly Rocznik Statystyczny*, 1987, p. 125).

are hard currency accounts. Eighty-five percent of the 56 enterprises interviewed by Wojciechowska said that these accounts were the primary reason they exported.[14] The accounts are used to purchase inputs (60 percent of expenditures), spare parts, and machinery. Their importance reflects both the continued acute shortages facing Polish enterprises and the fact that the *zloty* continues to be overvalued.

In January 1987, the government froze sums accumulated in these accounts and set up a new system. Under the old system, enterprises earned entitlements to purchase hard currency through exporting. The amount of the entitlement earned by a dollar of exports varied across enterprises. In the new system, enterprises supposedly *own* the hard currency. However, the new measures effectively froze several hundred million dollars of entitlements earned by Polish enterprises since 1982 that they planned to spend in 1987, creating supply problems that disrupted production. Although enterprises will supposedly be able to exercise these entitlements in coming years, managers will be skeptical of their ability to exercise their rights, and there will be a subsequent diminution in incentives to export.

Under the new system, enterprises may sell their hard currency on an interenterprise market run by the Ministry of Finance. In the initial auctions, enterprises were able to sell holdings at three to four times the official rate of exchange, a price similar to that prevailing on the black market.

Imports are primarily allocated on the basis of quotas. The Planning Commission and the Ministry of International Economic Cooperation generate a foreign trade plan in which imports are allocated on the basis of past usage and the preferences of the Council of Ministers. Branch ministries and associations then allocate hard currency allotments among enterprises, although some enterprises are assured of some imports by the Planning Commission or the Ministry of International Economic Cooperation. This system makes it very difficult to reallocate imports efficiently, because neither the Ministry nor the Planning Commission has the information needed to make the most efficient allocation of hard currency imports.

[14]Wojciechowska and Lipinski, 1986, p. 92.

IV. THE ENTERPRISES

To this point, the analysis has focused on the composition and goals of the center and the ways in which it attempts to steer enterprises. The following discussion attempts to summarize how enterprises have reacted to these measures.

CONTROL OF MANAGERS

Workers' Councils

In the original outline of the reform, published in 1981, workers were to have a deciding voice in the management of the enterprise through workers' councils. These councils, in conjunction with the branch ministry, were to hire and fire the directors of firms and to take an active role in making major decisions.

Reality has been quite different, with significant consequences for the operation of enterprises. Interviews with managers indicate that workers' councils are listened to and do play a role in the life of the enterprise.[1] However, they function more as an advisory board than as an executive or legislative body. They tend to concentrate on wage- and work-related problems, but some also discuss investment issues. Representatives of active workers' councils who attended seminars at the Institute of Sociology in Warsaw stated that they had some influence on personnel policy. In one case, they were able to force the resignation of an incompetent manager in charge of investment, but they also noted that participation in the council takes a great deal of time and perseverance is vital.

In most of the enterprises interviewed by Wojciechowska, more than 50 percent of the members of the workers' councils were workers, but in only one-quarter did this percentage exceed 60; management is thus also well represented. The councils often tend to be dominated by party members. In 20 of the 56 enterprises, more than 40 percent of the

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[1] Wojciechowska and Lipinski, 1986, p. 259.

workers' councils were party members.[2] This contrasts with 8 percent of workers as a whole.[3]

Founding Organs

The power to hire and fire managers continues to lie with the "founding organs," which are either the branch ministries, local governments, or, in some cases, other enterprises. In some instances, the choice appears to be influenced by the workers' councils.

Managers' salaries and bonuses are also determined by these organs. Salaries are set at the national level and fall into different grades, like those in the civil service in the United States. The ministry decides into which grade a manager falls. Because the government changes these levels slowly, in recent years highly skilled workers have been able to earn over 20 percent more than directors in some enterprises.[4] Salaries are not tied to the profitability or performance of the firm, in contrast to workers' wages, which are highly correlated with profit per worker.

Bonuses are also determined by the "founding organ." Enterprises in the light and chemical industries receive a "complex evaluation" twice a year based on sales, exports, labor productivity, the average level of wages, capital productivity, capacity utilization, the effectiveness of repair work, the material intensity of production, the energy intensivity of production, costs, changes in financial indicators such as changes in the development fund, and profits and losses, absenteeism, and the accident rate. Points are assigned for each category. Other enterprises are evaluated on an *ad hoc* basis. Seventeen of 22 enterprise managers who were evaluated using the "complex" method thought well of the exercise, but others criticized the method for being opaque.[5]

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[2] Ibid.
[3] Interview data.
[4] Wojciechowska and Lipinski, 1986, p. 66.
[5] Ibid., p. 196.

The inconsistency of this system with the goal of increasing enterprise efficiency is illustrated by the case of the Pokoj Steelworks. The enterprise was threatened with bankruptcy in 1986 and lost its credit rating. After receiving credits from enterprises outside the sector, presumably clients, it was able to stave off bankruptcy and put together a recovery plan based on closing the steel-smelting shop and blast furnace and concentrating on producing shaped and rolled products. However, the ministry demanded that the works continue to produce 220,000 tons of steel each year, because the Polish economy requires that quantity, even though the works is the highest-cost producer in Poland. The management and the local community want to close the 150-year-old steel-making section.[6] The ministry argues that it would be more expensive to import the shortfall in production than to continue operating the steelworks. In other words, exchange rate and price policies are irrational in this sector; the highest-cost producer making large losses is assumed to produce steel at a lower cost than that of importing it.[7] However, the ministry is able to insist that the plant continue to operate because it is the founding organ and because of a national resolution aimed at maintaining steel production.

MANAGEMENT OBJECTIVES

Although the Wojciechowska survey did not ask enterprise managers to define their goals, the above discussion of the role of the ministry and the workers' councils, coupled with newspaper accounts of enterprises, indicates that the primary goal of enterprise managers is

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[6]Stanislaw Zielinski, "Shut Down the Steelmaking Plant or Liquidate the Entire Steelworks?" *Trybuna Ludu*, April 10, 1987, p. 3, as translated in Joint Publications Research Service, *JPRS Report: East Europe*, JPRS-EER-87-100, June 25, 1987, p. 102.

[7]Tadeusz Jaworski, "Interview with Undersecretary of State in the Ministry of Metallurgy and the Machine Industry," *Trybuna Ludu*, April 10, 1987, p. 3, as cited in Joint Publications Research Service, *JPRS Report: East Europe*, JPRS-EER-87-100, June 25, 1987, p. 102.

to stay in the good graces of the branch ministries, and, to a lesser extent, of the workers' councils. As shown by the entries in the "complex evaluation," the branch ministries have several goals. The weights of these entries vary over time as policies and personnel change. However, because of the government's emphasis on preserving labor peace, the ministry's primary goal often boils down to keeping the work force content. For the enterprise manager, this has meant increasing workers' wages.

Between 1982 and 1987, the second two most important goals of managers appear to have been increasing production and increasing after-tax, after-subsidy profits. These goals are a product of the incentives provided by the center and the constraints under which enterprise managers operate.

Increasing Production

In 1982, the primary economic policy goal of the central government was to stop the fall in output. Branch ministers were under great pressure to increase production. They transmitted this pressure verbally to enterprise managers. Because of continued shortages, enterprise managers continue to be under great pressure from the branch ministries and customers to increase output.

Since 1983, this pressure has been applied through discussions of enterprise plans and through tax reliefs. In 1983, enterprises were permitted to raise wages above the centrally stipulated threshold for each percentage point increase in gross sales at comparable prices.[8] The system has since been transformed into tax relief based on increases in value-added, measured in comparable prices.[9] Thus, through personal pressure and financial means, enterprise managers have been induced to increase output.

[8] Lipinski and Wojciechowska, 1987.
[9] Wojciechowska and Lipinski, 1986, p. 72.

Increasing After-Tax, After-Subsidy Profits

One of the major objectives of Polish managers is to increase after-tax, after-subsidy profits. This objective is not so much imposed by the ministry as it is a necessary condition for maintaining the solvency of the enterprise and increasing production.

Polish enterprises do not face a "hard budget constraint" as defined by Kornai.[10] The government has been willing to bail out all large loss-making firms with subsidies or by forgiving loans. However, enterprises that continue to post losses find that life becomes difficult. A few enterprises have gone bankrupt, the first a small metal-working firm in Zabrze. However, the number of firms in financial difficulties has risen and currently numbers over 100.[11] Budapol, a large construction firm in Warsaw, has gone into bankruptcy proceedings and may be the first large enterprise to be liquidated.[12] Firms that fall into financial difficulties are overseen by an appointee of the National Bank and must work out a program to restore the enterprise to financial health. In effect, the old manager finds that his former power is curtailed or that he is out of a job. For these reasons, avoiding losses is an important objective for enterprise managers.

Profits are also important, because they facilitate maintaining the size of the labor force. Since 1982, when the Polish government offered early retirement to many people in their fifties, there has been endemic excess demand for labor in Poland.[13] Workers, especially highly skilled workers, move quickly to those enterprises that pay the highest wages.[14] Consequently, enterprise managers have had to increase wages to retain workers.

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[10]Kornai, 1980.

[11]Interview data.

[12]*Rzeczpospolita*, June 9, 1987, p. 7, as cited in Joint Publications Research Service, *JPRS Report: East Europe*, JPRS-EER-87-132, September 1, 1987, p. 112.

[13]Lipinski and Wojciechowska, 1987, p. 28.

[14]Wojciechowska and Lipinski, 1986, p. 64, 70.

Profits and tax relief provide the two most important avenues for increasing the wage fund. As noted above, relief on the payment of PFAZ, the wage increase tax, is granted for increasing exports or value-added, or reducing energy or raw material usage. Of the 56 enterprise managers interviewed by Wojciechowska, 26.8 percent reduced payments to PFAZ by increasing value-added,[15] 7.1 percent increased overtime (these payments are not subject to tax), 1.8 percent increased exports, and 1.8 percent reduced the use of energy or raw materials. The other enterprises either did not receive relief on the PFAZ tax or were granted individual relief from the Ministry of Finance.[16] Almost half the enterprises requested individual relief in 1985, and over half of these requests were granted. Relief had no correlation with financial results but appeared to be determined by the force with which the enterprise manager argued for them.[17]

More highly aggregated data also show the importance of tax relief in determining the financial results of Polish firms.[18] In 1986, income tax reliefs were given for 21.3 percent of the gross taxes of the 500 largest Polish enterprises. Of those reliefs, 54.1 percent were granted because of increased exports. Energy savings and quality awards accounted for only 2.7 and 3.9 percent, respectively. Arbitrary grants of individual reliefs comprised an important fraction of the remaining reliefs. Only 28 of the 500 largest Polish enterprises were not granted some form of tax relief.

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[15]Enterprise managers primarily increase value-added by changing the assortment of production from less profitable to more profitable goods. However, because of excess demand, profitability is often a function of the rigor of price controls, not changes in supply or demand. Enterprise managers shift production from products for which the permitted profit margin is low to those for which it is higher (Wojciechowska and Lipinski, 1986, p. 73).

[16]Ibid., p. 72.

[17]Ibid.

[18]The following information was taken from Marek Dabrowski, "Changes for the Better?" *Zarzadzanie*, No. 6, June 1987, p. 44, as cited in Joint Publications Research Service, *JPRS Report: East Europe*, JPRS-EER-87-138, September 10, 1987, p. 117.

Although managers actively pursued wage tax reliefs, profits were a more important determinant of wage increases. There is a strong positive correlation between profit margins and wage levels (Table 1). However, the industrial branch in which the enterprise is located is an important determinant of wage levels as well.

Profits are also pursued because they are an important source of investment funds. As shown in Table 1, profits are positively correlated with the rate of increase in funds available for investment. Forty-one percent of the enterprises interviewed by Wojciechowska (1986) financed their investments from the development fund, which is derived from profits. The second most important source of funding was subsidies from the national or local governments (30 percent of the enterprises); bank credit was used by only 14.2 percent. The remainder apparently did not respond to this part of the survey.

Table 1

THE RELATIONSHIP BETWEEN PROFIT MARGINS AND WAGES IN 1985

	Profits as a Percentage of Total Sales				
	Loss-making	0-5	5-15	15-30	> 30
	Monthly Wage (*zlotys*)				
Mean	17,900	18,100	19,100	19,600	20,300
Median	18,100	17,700	18,700	19,200	19,900
	Rate of Increase in the Development Fund (percent)				
Mean	-13.1	31.2	35.6	61.1	81.8
Median	-15.9	1.6	20.1	27.3	36.7
Number of enterprises	15	333	971	631	261

Source: Wojciechowska et al., 1987, p. 33, 37.

In the classic Soviet-type system, enterprise managers push for investments in new capacity, because the larger the enterprise, the higher the manager's salary. Investments also tend to facilitate the fulfillment of plan targets because they can remove short-run bottlenecks.

The incentives for investment in the Polish reformed system are not altogether the same as in the Soviet-type system. The enterprise managers interviewed by Wojciechowska (1986) said they invested to increase production, improve the quality of products, develop exports, improve the technological level of production, conserve on labor, energy, and materials, and protect the environment. Ministerial and customer pressure to expand production provides another incentive to invest, as does the desire to remove bottlenecks. Both these motives make it possible to increase profits or expand production. The former enables the enterprise manager to keep his own job and keep his work force happy; the latter pleases the ministry.

Other Goals

Profits can be pursued by increasing sales of profitable items, curbing production of loss-making items, raising prices under the assumption that sales will not decline, or reducing costs. Aside from the pursuit of profits, the reduction of inputs of energy and materials in production has been used by the branch ministry as an additional indicator to evaluate enterprise managers. Enterprises also receive wage tax reliefs for reducing costs.

Although enterprise managers said that from 0.5 to 8 percent of increases in profits stemmed from reducing costs, the majority argued that cost reduction was a poor way to increase profits.[19] They often found that the central authorities forced them to lower prices after cost reductions, thus eliminating the incentive to reduce costs. Reducing material inputs into production was also given as a reason for declines in quality.

[19]Wojciechowska and Lipinski, 1986, p. 21.

Increasing exports was another goal of enterprise managers.[20] Eighty-five percent of the managers interviewed by Wojciechowska cited hard currency accounts as the primary reason for exporting, although tax relief was also mentioned.[21] These accounts give the manager a great deal of freedom, because he can use the monies to purchase inputs, machinery, or spare parts that are in short supply. The resulting removal of the bottleneck permits production to run more smoothly and results in higher profits.

Sixty-five percent of the managers interviewed by Wojciechowska said exports to CMEA countries were more profitable than sales on the domestic market or hard currency exports, which provide an incentive for direct exports to the East.[22] Despite a widening differential between the dollar/ruble cross-exchange rates, this difference in the profitability of hard currency and ruble exports has not diminished.

MANAGEMENT CONSTRAINTS

Although after-tax, after-subsidy profits are important for Polish firms, Polish managers face several avenues along which they may be pursued. To some extent, managers follow the path of reducing costs and innovation. However, because of the many obstacles they face in adapting production, managers find that lobbying the center for tax relief, investment grants, and subsidies is possibly of greater importance in determining the financial health of their enterprises. Enterprise managers devote a great deal of their energy to lobbying, partly because the rate of return is high, but also because of the multiplicity of constraints that limit their managerial freedom.

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[20]Although enterprise managers are rewarded for import-substituting production, no particular rewards appear to be given for reducing the use of hard currency imports per se. Possibly this is due to the limited ability of the enterprise to determine the quantity of imports received.

[21]Wojciechowska and Lipinski, 1986, p. 97.

[22]Ibid., p. 79.

Prices

Price controls appear to have had a debilitating effect on profitability and on more rapid enterprise response to changes in demand and input costs. In general, the larger the share of fixed-price goods in total sales, the lower the profitability of the enterprise.[23] Neither subsidies, tax relief, nor annual increases in fixed prices can compensate enterprises for the greater profitability possible from selling goods that have contract prices.

Fifty-one of the 56 enterprises in the sample faced excess demand for their products. On average, managers said that in 1985 they could have sold 50 percent more than they were able to produce.[24] Enterprises in the most advantageous position were purveyors of inputs. Investment-goods producers had faced saturated markets in previous years. Some consumer-goods producers faced more equilibrated markets in 1985 as well.

Enterprises also were constrained by the center in their choices of clients. Eighty-two percent of the enterprise managers said that they did not have any choice of clients; they were either forced to sell all their output to a central wholesaler or were constrained by traditional ties or multiyear sales agreements with other enterprises.

Labor

Half the enterprise managers interviewed by Wojciechowska claimed that in 1985 they lacked sufficient workers, especially skilled workers.[25] Indeed, lack of workers was considered the primary constraint on the level of output by 70 percent of the enterprise managers.[26] Because of the lack of workers, capacity utilization averaged 72.5 percent and was especially low in the machine-building

[23] Wojciechowska et al., 1987, p. 35.
[24] Wojciechowska and Lipinski, 1986, p. 15.
[25] Ibid., p. 9.
[26] Ibid., p. 76.

sector (62.4 percent), where the average number of shifts was 1.44, as compared with more than 2 in the other industries.[27]

The reasons for excess demand for labor are easily traced to Polish monetary policy and wage controls. As noted above, almost all enterprises face excess demand for their products. Because of wage controls, the marginal product of labor exceeds wage levels, so enterprises seek workers. Even in cases where enterprises lose money due to price controls, the pressure to increase output, coupled with ministerial willingness to cover losses, increases the demand for labor. However, in most cases, price regulations are lax enough that enterprises can raise prices to ensure a profit, even though the resulting prices do not clear the market. Consequently, labor shortages persist.

Capital Stock

In recent years, Polish enterprises have complained of decapitalization, i.e., their capital stock is wearing out and not being replaced. According to enterprise managers, this has reached substantial proportions (Table 2).

Table 2

DECAPITALIZATION IN A SAMPLE OF POLISH INDUSTRIAL ENTERPRISES

	Percent of Total Capital Stock		
Industry	1983	1984	1985
Metallurgy	60.2	62.3	64.8
Machine building	44.4	47.6	49.5
Chemical	45.5	47.0	49.3
Textiles	64.4	64.5	65.7
Food processing	43.0	44.1	42.7

Source: Wojciechowska and Lipinski, 1986, p. 29.

[27]Ibid., p. 35.

Enterprise managers complained that they lack both financial and physical resources for investment. Although it is not as important a constraint on production as labor and input shortages, the quality and size of the capital stock was cited as a binding constraint on the volume and quality of production by 20 percent of the managers.[28] Moreover, because of the lack of development funds or the inability to import machinery, enterprises are constrained to repair older machinery, even though the cost of the repairs is greater than the cost of replacing the older machinery.[29]

Inputs

Fifty percent of the managers interviewed by Wojciechowska stated that problems with supplies constitute an important, binding constraint on production. Most of the enterprises received almost all their inputs through obligatory deliveries ordered by the center. These deliveries were often obtained under central government programs or through government orders.[30] For example, in metallurgy, an average of only 14.5 percent of supplies were contracted for on a free basis; the rest came from obligatory deliveries by suppliers.

Despite preferential treatment or government orders, more than half of the enterprises that participated in government programs (half the sample) reported that they had great problems with quantity, delivery times, and quality of supplies. Most enterprise managers said their contacts with government institutions in charge of supply were poor.[31] Poor supply was blamed for production disruptions, deterioration in the quality of output, and forced substitution. Supply irregularities make it very difficult to change output assortment and lead to very large inventories because enterprise managers fear they will be unable to procure inputs on time in the future.

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[28] Ibid., p. 10.
[29] Ibid., p. 32.
[30] Ibid., p. 43.
[31] Ibid., p. 43.

Imports

Imports continue to be a major constraint on production in Poland. Several enterprise managers stated that in 1985, lack of funds to purchase parts and Western machinery curtailed production and efficiency.[32]

Like other inputs, imports are in short supply. The bulk of expenditures on hard currency imports (over 80 percent) are determined by the Ministry of International Economic Cooperation in conjunction with the Planning Office, the branch ministries, or the associations. Funds are budgeted and then distributed according to "need," not willingness to pay. Moreover, in times when the Foreign Trade Bank faces shortages of hard currency, imports are delayed, leading to production delays as needed components do not arrive on time.[33]

Hard currency accounts provide a way around shortages. Not surprisingly, enterprise managers who have these funds appear to use them in a highly efficient manner. They purchase goods that remove bottlenecks in production, i.e., have very high marginal rates of return. These enterprises sometimes sell suppliers hard currency in exchange for guaranteed supplies.

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[32] Ibid., p. 100.
[33] Ibid., p. 101.

V. ASSESSING THE REFORM

MANAGERIAL ASSESSMENT

The Polish managers interviewed by Wojciechowska were also asked for their opinions concerning the reform, specifically opinions on the independence of enterprises, the degree to which the enterprises were self-financing, and the role of self-management. The survey concluded with a general evaluation of the reform.

Although 18 of the 56 managers said that they had more independence under the reform and only 6 argued that independence had not increased, even those who evaluated their independence positively said that it was severely constrained. Thirteen directors stated that the government issued too many regulations and changed them too often; 11 said that the government prohibited them from expanding; 9 said that their independence was curtailed because they were not permitted to set their own prices; and 7 saw their independence curtailed by financial instruments.[1] Several enterprise managers also offered the opinion that the center had gained decisionmaking power at the expense of the enterprises and that this situation would continue to get worse.[2]

Thirty-nine percent of the respondents (22 enterprises) said that they were self-financing; 58 percent stated that possibilities in this area had become very restricted. In general, enterprises argued that they were unable to be self-financing because of lack of funds (14 enterprises), the tax system (10), the price system (10), increases in raw materials and input prices (6), credit policy (5), the PFAZ tax (3), and payments problems stemming from clients' failure to pay promptly (4).[3] Although one could argue that tax policies make it extremely difficult for enterprises to cover their own investment costs, managers seemed somewhat confused over what constitutes self-financing. According to the survey responses, they generally sought explanations for their financial problems in outside forces. However, the fact that

[1] Wojciechowska and Lipinski, 1986, p. 252.
[2] Ibid., p. 254.
[3] Ibid., p. 256.

many firms actually have financial problems--not a serious difficulty in traditional Soviet-type systems--indicates that in a general sense enterprises have to be self-financing, i.e., profitable.

An interview within the Polish National Bank also added force to the argument that enterprises are self-financing. The interviewee said that many enterprises did not apply for bank credits for investment, but preferred to finance investments out of current profits. In many cases, this has led to very long construction times, since construction proceeds as funds become available. He explained that enterprises disliked bank financing, because managers put a very high premium on assuring future profits so they can continue to raise wages. Bank finance ties down part of this uncertain future stream of profits that might be needed to increase workers' wages. By investing as funds become available, the enterprise manager maintains his freedom to control future profit flows.

This interview also demonstrates the high level of uncertainty faced by enterprise managers. If a profit stream is likely to be highly profitable, one would think managers would borrow to finance the investment, but in the face of shifting regulations on price formation and input availability, the payback to most investments is so uncertain that managers appear to be unwilling to incur the debts necessary to finance them.

Twenty-two of the enterprise managers criticized the lack of possibilities to finance their own development; only 1 cast a positive light on the possibility of self-finance. The criticisms focused on the confiscatory nature of taxation and the tight controls on prices. High profit taxes and the payment of a large portion of amortization to the national budget sharply limit the managers' own resources.

Self-Management

Forty enterprise managers evaluated enterprise councils positively, 13 had mixed views, and only 1 evaluated them negatively.[4] Most

[4]Ibid., p. 260.

disagreements concerned wages. Councils vote on the enterprise accounting balance, the division of profits, the annual plan, and the system of wages. Workers' councils have a very limited role in the selection of managers. Most of their influence is confined to promoting the consideration of several candidates.[5] The ultimate decision appears to be made by the enterprise director or the branch ministry.

Workers' council representatives and managers both argue that the influence of a workers' council is directly proportional to the level of activity of its members.[6] Enterprise managers appear to credit the councils with a substantial amount of authority. When asked who makes the key decisions for the enterprise, 33 managers said the management, 18 said the management in cooperation with the workers' council, 4 said the workers' council, and only 1 said the proprietary organ (the branch ministry). Forty-three managers said they consulted the party organization, and 33 consulted the labor unions as well.[7] Managers were divided concerning the role of the councils. Some argued that they should fulfill their statutory role, which makes them a decisionmaking body. The other group argued that they should be only a consultative group.

The second and third elections for workers' councils indicated a declining level of interest by the workers themselves. Ministerial reports found voter participation was down in 1986 in comparison with previous years, and some elections had to be held two or even three times because of low voter turnouts. The primary reason appears to be that the councils take up too much time and do not bring either benefits or satisfaction to the participants.[8]

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[5] Ibid., p. 261.
[6] Ibid., p. 262.
[7] Ibid., p. 262.
[8] Irena Dryll, "Self-Management Does Not Want to Be the Loser," *Zycie Gospodarcze*, No. 22, May 31, 1987, pp. 1, 4.

General Managerial Evaluation

Fourteen of the 56 managers evaluated the reform positively; the rest were critical. The critics argued that the reform had not been implemented as planned, and many fundamental features still did not exist. The sharpest criticism was directed toward the center for its unwillingness to trust decisions made by enterprise managers. One manager criticized the center for constantly changing regulations and for being too soft--not making enterprises suffer the consequences of the decisions taken by their directors. He argued that there was a lack of freedom to make decisions and a lack of responsibility for those that were made.[9] Another manager argued that the center was pleased with the reform, but enterprise managers were not. The enterprise manager still approached the center as a supplicant, pleading for materials, imports, investments, and tax relief.

When asked which social group most opposed the expansion of the reform, 28 managers placed the blame on the central administrative bureaucracy, and 7 argued that production workers were the greatest barrier. Eleven managers said that the major problem was the ineffectiveness of the instruments employed to steer the economy. In general, managers stated that because of outside constraints, improvement of economic efficiency was impossible.[10] If efficiency is to be improved, constraints on hiring labor, investing, and procuring inputs have to be removed.

ECONOMIC PERFORMANCE

The opinions of enterprise managers, although illuminating, are not the most unbiased means of evaluating the reform in state-owned industry. The reform may have functioned well, despite the comments made by enterprise managers, if it has served to redirect investment and labor to more productive sectors and if it has induced increases in factor productivity.

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[9] Wojciechowska and Lipinski, 1986, p. 265.
[10] Ibid.

The Polish statistical yearbook (*Rocznik Statystyczny*) contains information on investment and employment by industrial sector and on capital and labor used in industry as a whole. These data, coupled with data on profitability provided in Wojciechowska et al. (1987), are used below to assess the effectiveness of the reform in improving Polish economic efficiency.

Factor productivity growth is compared for two periods: 1975-78, the years before the economic crisis, but also years when the government began to try to tighten its belt; and 1983-85, the first three years after the reform. Factor productivity growth is defined as the change in the ratio of net industrial output to three inputs--the stock of fixed capital, hours worked in industry, and electricity consumption by industry.

Table 3 compares factor productivity growth for these two periods. Despite the apparent superior performance in terms of capital productivity growth and improvement in the efficiency with which electric power has been used in the reform period, the figures mask the tremendous declines experienced in factor productivity in Poland. The ratio of net material product (NMP) produced by socialized industry to capital was 65 percent lower in 1985 than in 1975, implying an enormous decline in capital productivity. The ratio of NMP produced in socialized industry to electrical consumption by socialized industry was 20 percent lower in 1985 than in 1977, again indicating a decline in efficiency, although this ratio may merely reflect a change in the composition of energy consumption. On the other hand, the ratio of NMP produced in socialized industry to hours worked was 3 percent higher in 1985 than in 1979, showing an absolute rise in the productivity of labor. In sum, socialized industry has not become notably more efficient since the introduction of the economic reform.

A second indicator of the success of the reform is whether resources have been reallocated to more efficient sectors. Wojciechowska et al. (1987) provide information on profits as a percentage of gross sales and on profits per worker. Although these categories are not equivalent to rates of return and are heavily

Table 3

FACTOR PRODUCTIVITY GROWTH IN POLISH SOCIALIZED INDUSTRY

Period	Net Output/ Capital	Net Output/ Labor	Net Output/ Electricity
	Factor Productivity Growth		
1975	0.401	0.343	0.038
1976	0.401	0.371	0.038
1977	0.388	0.397	0.039
1978	0.364	0.412	0.039
1979	0.330	0.407	0.038
1980	0.303	0.395	0.036
1981	0.249	0.367	0.033
1982	0.232	0.383	0.032
1983	0.238	0.384	0.032
1984	0.242	0.406	0.032
1985	0.242	0.422	0.033
	Average Annual Rate of Increase		
1975-78	-2.42	4.62	0.60
1983-85	0.64	3.22	0.63

influenced by capital/labor ratios,[11] they provide a rough indication of relative profitability. Comparisons of sectors ranked by profitability with their shares in total employment and investment in socialized industry provide some indication of the success of the reform in reallocating resources toward more profitable sectors.

Table 4 shows the average share by industrial sector of investment and employment in socialized industry for the 1975-78 and 1983-85 periods, gross profit margins, and profits per worker. The industries are arranged in descending order.

The table shows that capital and labor flows have been the *reverse* of what one would expect based on profitability considerations. The

[11]For example, the electricity-generating industry registers the highest profits per worker because it is very capital-intensive.

Table 4

INVESTMENT AND EMPLOYMENT SHARES AND THE PROFITABILITY OF SOCIALIZED INDUSTRY

Industry	Gross Profit Margins	Profits per Worker	Percent of Investment 1975-78	Percent of Investment 1983-85	Percent of Labor Force 1975-78	Percent of Labor Force 1983-85
Light	33.5	248.8	5.1	5.2	17.7	15.2
Other	30.5	296.0	1.5	1.6	2.4	3.3
Electricity generation	27.3	3460.1	8.7	15.5	1.7	2.3
Machine-building	27.1	348.3	25.1	22.3	33.4	34.0
Chemical	19.4	502.1	11.1	10.0	7.1	6.6
Minerals and wood products	17.4	203.7	10.9	7.4	12.1	10.6
Metallurgy	9.8	550.9	16.8	5.8	5.4	5.0
Coal	2.5	141.9	8.4	16.2	7.9	10.0
Food	-2.6	332.5	9.2	11.9	11.3	11.8

coal and food industries have had the worst profitability performance, yet these two industries and electricity generation have registered the largest gains in the shares of investment. Both industries have also registered strong increases in their shares of employment at the expense of apparently more profitable industries. These figures may merely reflect the irrational Polish price system, in which goods facing high excess demand, such as meat and coal, have relatively lower fixed prices and therefore are not profitable. They also reflect industry-specific technologies, e.g., the relatively fixed capital/labor ratios in electricity generation. Perhaps the low profitability of the sectors to which capital and labor are being reallocated also reflects the high costs of old production technologies; new investment may be more profitable. However, the figures indicate the very limited role of profits in determining the allocation of investments and labor. Prices in Poland still do a poor job of reflecting relative efficiency and scarcity, a consequence of the central government's pricing policies.

VI. CONCLUSIONS

Neither the data nor the interviews provide favorable indications of the efficacy of the reform. Markets, an important mechanism for the proper functioning of the reform, have had very limited roles in resource allocation. The signals received by enterprise managers appear to be of very poor quality. The combination of controlled prices and accommodatory monetary policy has led to excess demand in almost all markets. Tighter controls on input prices than on output prices have preserved a highly distorted price system. As a consequence, planners appear to use relative rates of return to a very limited extent when choosing investment projects and providing wage subsidies. The reform appears to have done little to restructure the Polish economy toward an output mix that would more efficiently use available resources.

Wojciechowska notes that a major problem in the reform is the frequency with which regulations are changed and the poor flow of information between the center and enterprise managers. Even the managers of the large enterprises interviewed by Wojciechowska frequently did not understand or were not aware of new directives. There was also very little coordination between the central plan and enterprise plans. Because the state allocates such a large share of inputs directly, this lack of knowledge has led to large efficiency losses and poor planning, according to Wojciechowska.[1]

The major problem faced by enterprise managers is that of supply uncertainties. Production is frequently constrained by shortages of labor and intermediate goods, especially imports. These shortages reflect the excess demand endemic to the system and the absence of a price system that reflects relative scarcities and permits the highest bidder to purchase scarce goods and services.

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[1] Wojciechowska and Lipinski, 1986, pp. 275-292.

Excess demand in the system stems from the central authorities' unwillingness to impose hard budget constraints on enterprises. The *ad hoc* grants of subsidies and tax reliefs which have increased the budget deficit (and excess demand) have served to reward poorly performing enterprises and have provided substantial incentives for enterprises to lobby for these reliefs rather than focus on changing internal operations.

The interviews reveal the quick responses of enterprise managers to changes in incentives and the close attention they pay to tradeoffs. For example, the authorities provide tax relief for conservation of energy and materials and also for products that are deemed deserving of "quality symbols." Enterprise managers claim that the costs of producing higher-quality products are greater than the benefits of the tax reliefs or the increases in prices permitted for products that were given the quality sign.[2] In other words, managers have calculated the relative costs and benefits of the program and have decided against participation.

One can also see the quick response of enterprise managers in the alacrity with which they respond to operational programs. Enterprises participating in these programs receive higher priority in the allocation of inputs than those that do not. Consequently, despite the narrow thrust of some of these programs, most enterprises have participated in one or more.[3]

In view of these two examples, it appears that the hypothesis that the mentality of consumers, producers, and especially managers must be changed before the reform can function is false. The argument, somewhat akin to the argument that the Soviet-type system will work well when people have developed a "socialist" mentality, is used to mask the real problems with the reform: the many constraints on production and investment imposed on enterprise managers by the center. Whether state-owned enterprises would still function poorly in a market system is open

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[2] Ibid., p. 21.
[3] Lipinski and Wojciechowska, 1986, p. 21.

to question. However, the argument that they have failed under current reforms reflects the inability of the center to introduce market conditions in the economy, rather than attitudinal problems of managers and consumers.

This leads to the question, why has the center failed to introduce these conditions? This Note argues that macroeconomic policy concerns other than efficiency have led to the introduction of a plethora of policy instruments (PFAZ, individual subsidies, tax refiefs, etc.) that have sharply reduced the effectiveness of measures to improve efficiency. If monetary and fiscal policy had been less accommodating, there might have been less pressure to introduce these efficiency-reducing measures. However, the Polish central authorities appear to have been unwilling to bear the political costs of some loss of power and of antagonizing certain interest groups by implementing sterner measures. This unwillingness has been the primary reason for the failure of the reform to markedly improve economic efficiency.

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